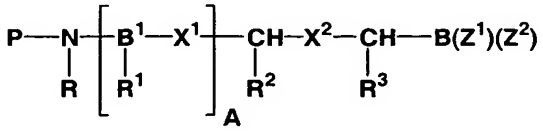
What is claimed is:

1. A compound having the formula (**1a**):



(1a)

or a pharmaceutically acceptable salt thereof; wherein

P is hydrogen or an amino group protecting moiety;

A is zero;

X^2 is –C(O)–NH–;

R is hydrogen or C_{1-8} alkyl;

R^2 is $-CH_2-R^5$;

R^3 is C_4 alkyl;

R^5 is aryl, cycloalkyl, or a 5-10 membered saturated, partially unsaturated or aromatic heterocycle, wherein R^5 is optionally substituted by one or two substituents independently selected from the group consisting of C_{1-6} alkyl, C_{3-8} cycloalkyl, C_{1-6}alkyl(C_{3-8})cycloalkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, cyano, amino, C_{1-6} alkylamino, di(C_{1-6})alkylamino, benzylamino, dibenzylamino, nitro, carboxy, carbo(C_{1-6})alkoxy, trifluoromethyl, halogen, C_{1-6} alkoxy, C_{6-10} aryl, C_{6-10} aryl(C_{1-6})alkyl, C_{6-10} aryl(C_{1-6})alkoxy, hydroxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, C_{6-10} arylthio, C_{6-10} arylsulfinyl, C_{6-10} arylsulfonyl, C_{1-6} alkyl(C_{6-10})aryl, and halo(C_{6-10})aryl;

Z^1 and Z^2 are each independently one of alkyl, hydroxy, alkoxy, or aryloxy, or together Z^1 and Z^2 form a moiety derived from a dihydroxy compound having at least two hydroxy groups separated by at least two connecting atoms in a chain or ring, said chain or ring comprising carbon atoms and, optionally, a heteroatom or heteroatoms which can be N, S, or O.

2. The compound of claim 1, wherein R is hydrogen.

3. The compound of claim 1, wherein R^3 is isobutyl.

4. The compound of claim 1, wherein P is R^7–C(O)– or R^7–SO_2–, where R^7 is one of alkyl, cycloalkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl, or a saturated or partially unsaturated heterocycle, wherein the ring portion of R^7 is optionally substituted.

5. The compound of claim 1, wherein P is R^7-NH-C(O)- or R^7-O-C(O)-, where R^7 is one of alkyl, cycloalkyl, aryl, aralkyl, heteroaryl, or heteroarylalkyl, wherein the ring portion of R^7 is optionally substituted.

6. The compound of claim 4 or 5, wherein R^7 is an optionally substituted aryl or aralkyl.

7. The compound of claim 4 or 5, wherein R^7 is an optionally substituted heteroaryl or heteroaralkyl.

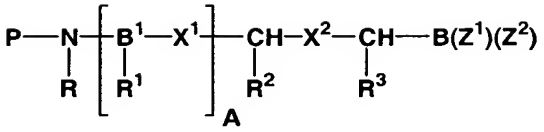
8. The compound of claim 1, wherein R^5 is an optionally substituted $C_{6\text{-}10}$ aryl.

9. The compound of claim 1, wherein R^5 is phenyl.

10. The compound of claim 9, wherein Z^1 and Z^2 are both hydroxy.

11. The compound of claim 9, wherein Z^1 and Z^2 together form a moiety derived from a dihydroxy compound having at least two hydroxy groups separated by at least two connecting atoms in a chain or ring, said chain or ring comprising carbon atoms and, optionally a heteroatom or heteroatoms independently selected from the group consisting of N, S, and O.

12. A compound having the formula (**1a**):



(1a)

or a pharmaceutically acceptable salt thereof; wherein

P is R^7-C(O)- or R^7-SO_2-, and R^7 is an optionally substituted aryl or aralkyl;

A is zero;

X^2 is –C(O)–NH–;

R is hydrogen;

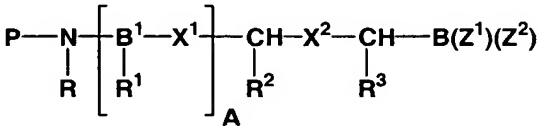
R^2 is benzyl;

R^3 is C_4 alkyl; and

Z^1 and Z^2 are independently one of hydroxy, alkoxy, or aryloxy, or together Z^1 and Z^2 form a moiety derived from a dihydroxy compound having at least two hydroxy groups separated by at least two connecting atoms in a chain or ring, said chain or ring comprising carbon atoms and, optionally, a heteroatom or heteroatoms which can be N, S, or O.

13. The compound of claim 12, wherein R^7 is phenyl.

14. A composition, which upon combination with a physiologically acceptable saline carrier forms a solution suitable for intravenous, intramuscular or subcutaneous administration to a patient, said solution comprising a compound of the formula (**1a**):



(1a)

or a pharmaceutically acceptable salt thereof; wherein

P is hydrogen or an amino group protecting moiety;

A is zero;

X^2 is –C(O)–NH–;

R is hydrogen or C_{1-8} alkyl;

R^2 is $–CH_2–R^5$;

R^3 is C_4 alkyl;

R^5 is aryl, cycloalkyl, or a 5-10 membered saturated, partially unsaturated or aromatic heterocycle, wherein R^5 is optionally substituted by one or two substituents independently selected from the group consisting of C_{1-6} alkyl, C_{3-8} cycloalkyl, C_{1-6}alkyl(C_{3-8})cycloalkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, cyano, amino, C_{1-6} alkylamino, di(C_{1-6})alkylamino, benzylamino, dibenzylamino, nitro, carboxy, carbo(C_{1-6})alkoxy, trifluoromethyl, halogen, C_{1-6} alkoxy, C_{6-10} aryl, C_{6-10} aryl(C_{1-6})alkyl, C_{6-10} aryl(C_{1-6})alkoxy, hydroxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, C_{6-10} arylthio, C_{6-10} arylsulfinyl, C_{6-10} arylsulfonyl, C_{1-6} alkyl(C_{6-10})aryl, and halo(C_{6-10})aryl;

Z^1 and Z^2 are both hydroxy.

15. The composition of claim 14, wherein R is hydrogen.

16. The composition of claim 14, wherein R^3 is isobutyl.

17. The composition of claim 14, wherein P is R^7–C(O)– or $R^7–SO_2–$, where R^7 is one of alkyl, cycloalkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl, or a saturated or partially unsaturated heterocycle, wherein the ring portion of R^7 is optionally substituted.

18. The composition of claim 14, wherein P is R^7-NH-C(O)- or R^7-O-C(O)-, where R^7 is one of alkyl, cycloalkyl, aryl, aralkyl, heteroaryl, or heteroarylalkyl, wherein the ring portion of R^7 is optionally substituted.

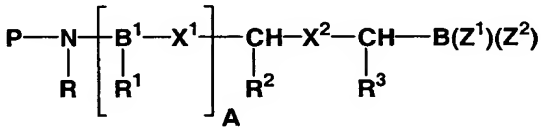
19. The composition of claim 17 or 18, wherein R^7 is an optionally substituted aryl or aralkyl.

20. The composition of claim 17 or 18, wherein R^7 is an optionally substituted heteroaryl or heteroaralkyl.

21. The composition of claim 14, wherein R^5 is an optionally substituted $C_{6\text{-}10}$ aryl.

22. The composition of claim 14, wherein R^5 is phenyl.

23. A composition, which upon combination with a physiologically acceptable saline carrier forms a solution suitable for intravenous, intramuscular or subcutaneous administration to a patient, said solution comprising a compound of the formula (**1a**):



(1a)

or a pharmaceutically acceptable salt thereof; wherein

P is R^7-C(O)- or R^7-SO_2-, and R^7 is an optionally substituted aryl or aralkyl;

A is zero;

X^2 is –C(O)–NH–;

R is hydrogen;

R^2 is benzyl;

R^3 is C_4 alkyl; and

Z^1 and Z^2 are both hydroxy.

24. The composition of claim 23, wherein R^7 is phenyl.